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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,036	03/26/2004	Peter Rae Shintani	40000-0052	9541

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EXAMINER

ARAGON, LORENZO C

ART UNIT	PAPER NUMBER
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4157

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/811,036	Applicant(s) SHINTANI ET AL.	
	Examiner Lorenzo C. Aragon	Art Unit 4157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-62 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>03-26-2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:
 - a. On page 2, paragraph [0031], line 6, "103" should be - 130 -.
 - b. On page 2, paragraph [0032], lines 1, 3, 5-6, and 8, "103s" should be - 130 -.
 - c. On page 3, paragraph [0046], line 3, "100-1" should be - 100-5 -.
 - d. On page 3, paragraph [0047], line 6, "103" should be - 130 -.

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1-16, 18-32, 34-45, and 47-61 are rejected under 35 U.S.C. 102(e) as being anticipated by Stewart, U.S. Patent Application Publication No. 2004/0252243 A1.**

a. Regarding Claim 1, Stewart discloses a system for controlling an exterior television antenna (page 2, paragraph [0028], lines 1-7) comprising:

an amplifier circuit mounted on a building exterior with said exterior television antenna and connected to said television antenna (FIG.1, element 14 and page 3, paragraph [0033], lines 7-9)

a control line extending into an interior of said building, said control line being connected to said amplifier circuit for controlling a gain of said amplifier circuit (page 5, paragraph [0049], lines 1-9; FIG. 1, element 18 and FIGs. 6-8, element 70).

b. Regarding Claim 2, Stewart discloses a system of claim 1, he further discloses wherein said control line is connected to a television which outputs a control signal on said control line to control said amplifier circuit (page 5, paragraph [0054], lines 1-3; page 5, paragraph [0055], lines 7-15 and FIGs. 6-8, element 70).

c. Regarding Claim 3, Stewart discloses a system of claim 2, he further discloses wherein said television outputs said control signal based on a channel being tuned by said television (page 2, paragraph [0027], lines 1-15).

d. Regarding Claim 4, Stewart discloses the system of claim 1, he further discloses wherein said control line is connected to a control unit that is connected to a television and outputs a control signal on said control line to control said amplifier circuit (page 5, paragraph [0051], lines 2-6 and page 6, paragraph [0059], lines 23-24; although Stewart does not specifically disclose a control unit, his invention has the functionality of a control unit as described by applicant.)

e. In regards to Claim 5, Stewart discloses a system of claim 4, he further discloses wherein said control unit outputs said control signal based on a channel being tuned by said television (page 2, paragraph [0027], lines 1-15).

f. In regards to Claim 6, Stewart discloses a system of claim 1, he further discloses wherein said control line also provides power for said amplifier circuit (page 3, paragraph [0033], lines 9-12).

g. In regards to Claim 7, Stewart discloses a system of claim 6, he further discloses wherein said control line carries a control signal which is a direct current (DC) voltage signal comprising a voltage to power said amplifier circuit plus an additional voltage that varies to indicate a desired gain of said amplifier circuit (page 3, paragraph [0033], lines 9-12 and FIG. 6-8, element 70).

h. In regards to Claim 8, Stewart discloses a system of claim 1, he further discloses further comprising a signal line connected to said amplifier circuit for transmitting an amplified signal from said antenna to a receiving device in said building; wherein said control line is sheathed with said signal line (page 5, paragraph [0054], lines 1-8 and FIG. 6-8, element 70; although Stewart does not explicitly disclose sheathed lines, he teaches using a coax cable to connect amplifying circuitry to receiving devices).

i. In regards to Claim 9, Stewart discloses a system of claim 1, he further discloses wherein said amplifier circuit comprises a voltage controlled amplifier, wherein said amplifier receives power and a voltage controlling a gain of said amplifier over said control line (page 3, paragraph [0033], lines 9-12) and FIGs. 6-8, element 70).

j. In regards to Claim 10, Stewart discloses a system of claim 1, he further discloses wherein said amplifier circuit comprises: an attenuator connected to and controlled by said control line; and an amplifier, wherein said attenuator selectively attenuates a signal from said antenna before providing that signal to said amplifier (page 5, paragraph [0056], lines 9-24 and FIG. 7, elements 60 and 70; although Stewart does not explicitly disclose the use of an attenuator, its use is inherently disclosed, as it is a necessary element for gain adjustment).

k. In regards to Claim 11, Stewart discloses a system of claim 10, he further discloses wherein said attenuator is voltage controlled (page 3, paragraph [0033], lines 9-12; although Stewart does not explicitly disclose the use of an attenuator, its use is inherently disclosed, as it is a necessary element for gain adjustment).

l. In regards to Claim 12, Stewart discloses a system of claim 11, he further discloses wherein said control line also provides power for said amplifier circuit (page 3, paragraph [0033], lines 9-12 and FIG. 6-8, element 70).

m. In regards to Claim 13, Stewart discloses a system of claim 1, he further discloses wherein:

said exterior television antenna comprises two or more antenna elements differently oriented (page 2, paragraphs [0025] and [0026]);

said amplifier circuit further comprising a controller connected to said control line and an amplifier (page 5, paragraph [0051], lines 2-6 and page 6, paragraph [0059], lines 23-

24; although Stewart does not specifically disclose a controller, his invention has the functionality of a controller as described by applicant); and

said controller selectively provides signals from said antenna elements to said amplifier in response to a control signal on said control line to adjust a polarity of said antenna (page 2, paragraph [0027], lines 1-15; although Stewart does not specifically disclose polarity adjustments, it is inherently disclosed that this adjustment is part of the signal optimization process).

n. In regards to Claim 14, Stewart discloses a system of claim 13, he further discloses wherein said controller also selectively attenuates signals from said antenna elements based on said control signal to adjust an effective gain of said amplifier (page 5, paragraph [0056], lines 9-24; although Stewart does not explicitly disclose the use of an attenuator, its use is inherently disclosed, as it is a necessary element for gain adjustment).

o. In regards to Claim 15, Stewart discloses a system of claim 1, he further discloses:

said exterior television antenna comprises two or more antenna elements differently oriented (page 2, paragraphs [0025] and [0026]);

said amplifier circuit further comprises two or more amplifiers connected to respective antenna elements (page 6, paragraphs [0061] and [0062]; and

said control line provides independent control signals to said amplifiers to selectively adjust a gain of each of said amplifiers to adjust a polarity of said antenna (page 2, paragraphs [0027] and [0028]; although Stewart does not specifically disclose polarity

adjustments, it's inherently disclosed that this adjustment is part of the signal optimization process).

p. In regards to Claim 16, Stewart discloses a system of claim 15, he further discloses wherein said amplifier circuit further comprises a summer for combining signals from said two or more amplifiers (FIGs. 1-3, 5, and 8, element 22).

q. In regards to Claims 18, 34, and 47, they are analyzed and rejected for the same reasons set forth in the rejection of Claim 1 because the scope of the claims are similar to Claim 1.

r. In regards to Claims 19, 35, and 48, they have been analyzed and rejected for the same reasons set forth in the rejection of Claim 2 above because the scope of the claims are similar.

s. In regards to Claims 20 and 36, they have been analyzed and rejected for the same reasons set forth in the rejection of Claim 3 above because the scope of the claims are similar.

t. In regards to Claims 21, 37, and 49, they have been analyzed and rejected for the same reasons set forth in the rejection of Claim 4 above because the scope of the claims are similar.

u. In regards to Claims 22, 38, 50, they have been analyzed and rejected for the same reasons set forth in the rejection of Claim 5 above because the scope of the claims are similar.

v. In regards to Claims 23, 39, and 51, they have been analyzed and rejected for the same reasons set forth in the rejection of Claim 6 above because the scope of the claims are similar.

w. In regards to Claims 24, 40, and 52, they have been analyzed and rejected for the same reasons set forth in the rejection of Claim 7 above because the scope of the claims are similar.

x. In regards to Claims 25, 53, they have been analyzed and rejected for the same reasons set forth in the rejection of Claim 8 above because the scope of the claims are similar.

y. In regards to Claims 26, 41, and 54, they have been analyzed and rejected for the same reasons set forth in the rejection of Claim 9 above because the scope of the claims are similar.

z. In regards to Claims 27, 42, 55, they have been analyzed and rejected for the same reasons set forth in the rejection of Claim 10 above because the scope of the claims are similar.

aa. In regards to Claims 28, 43, and 56, they have been analyzed and rejected for the same reasons set forth in the rejection of Claim 11 above because the scope of the claims are similar.

bb. In regards to Claims 29 and 57, they have been analyzed and rejected for the same reasons set forth in the rejection of Claim 12 above because the scope of the claims are similar.

cc. In regards to Claims 30, 44, and 58, they have been analyzed and rejected for the same reasons set forth in the rejection of Claim 13 above because the scope of the claims are similar.

dd. In regards to Claims 31 and 59, they have been analyzed and rejected for the same reasons set forth in the rejection of Claim 14 above because the scope of the claims are similar.

ee. In regards to Claims 32, 45, and 60, they have been analyzed and rejected for the same reasons set forth in the rejection of Claim 15 above because the scope of the claims are similar.

ff. In regards to Claim 61, it has been analyzed and rejected for the same reasons set forth in the rejection of Claim 16 above because the scope of the claims are similar.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 17, 33, 46, and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart as applied to claims 1, 18, 34, and 47 above, and further in view of Flynn, U.S. Patent No. 6,069,462.

a. In regards to Claim 17, Stewart does not explicitly disclose a system comprising of a motor for selectively rotating an antenna to optimize reception. However, Flynn discloses a system that provides a control unit for a motor of a rotary television antenna which is actuated by a signal representative of a selected channel to thereafter automatically effect antenna rotation (Flynn, column 1, lines 38-43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use a motor to selectively rotate an antenna as taught by Flynn in the invention of Stewart because Flynn teaches that provides optimized reception (Flynn, column 1, lines 38-43).

b. In regards to Claims 33, 46, and 62, they have been analyzed and rejected for the same reasons set forth in the rejection of Claim 17 above because the scope of the claims are similar.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. U.S. Patent No. 6,128,466 to Trek et al. discloses a wireless receiving subsystem operatively connectable to a broadcast receiver unit having a frequency tuner, an antenna with a feed point, an amplifier located essentially at the feed point, and a transmission line

extending from the feed point of the antenna and the amplifier to a signal input of the broadcast receiver unit.

b. U.S. Patent No. 7,034,893 to Liu et al. discloses a digital television signal intercepted by a plurality of antennas to produce a corresponding plurality of input signals. The antennas have different directionality so they can be combined in a way that reduces multipath echoes.

c. U.S. Patent No. 7,006,040 to Henderson et al. discloses antennas with steerable antenna patterns and techniques.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LORENZO C. ARAGON whose telephone number is (571)270-3727. The examiner can normally be reached on 8:00 AM - 10:00 PM M-F, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571) 272-7332. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lorenzo C. Aragon/
Examiner, Art Unit 4157

/Vu Le/
Supervisory Patent Examiner, Art Unit 4157
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